

**REPLACED BY  
ART 34 AMDT**C L A I M S

- 5        1. Swirl tube separator for separating solids from a  
gas-solid containing feed comprising a tubular housing,  
an axial inlet for introducing a gas-solids mixture at  
one end of said housing, wherein said axial inlet for  
introducing the gas-solids mixture is provided with  
10       swirl imparting means, a solids outlet opening at the  
opposite end of said housing, and a co-axial positioned  
tubular gas outlet conduit placed at an end of said  
housing, wherein along the axis of the tubular housing a  
vortex extender pin is present.
- 15       2. Swirl tube separator according to claim 1, wherein  
the pin is present along at least 20% of the axis of the  
tubular housing, said axis running from the inlet  
opening of the gas outlet conduit up to the end of the  
20       tubular housing opposite said gas outlet conduit.
- 25       3. Swirl tube separator according to claim 2, wherein  
the pin is present along at between 30 and 100 % of the  
axis of the tubular housing.
- 30       4. Swirl tube separator according to claim 3, wherein  
the pin is present along 100 % of the axis of the  
tubular housing.
- 35       5. Swirl tube separator according to any one of claims  
1-4, wherein the pin extends from the interior of the  
gas outlet conduit into the tubular housing and wherein  
the pin is fixed within the gas outlet conduit by means  
of supporting means, said supporting means are swirl  
means which swirl means are positioned such that they  
decrease the swirling motion of the gas being discharged  
via the gas outlet conduit.

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6. Swirl tube separator according to any one of claims  
1-5, wherein the inlet for introducing the gas solids  
mixture and the gas outlet conduit are arranged at one  
10 end of the tubular housing and the solids outlet opening  
is positioned at the opposite end of said housing.

7. Swirl tube separator according to any one of claims  
1-5, wherein the inlet for introducing the gas solids  
15 mixture is arranged at one end of the tubular housing  
and the solids outlet opening and the gas outlet conduit  
is positioned at the opposite end of said housing such  
that the solids outlet opening is positioned in the  
space between the gas outlet conduit and the wall of  
20 said housing.

8. Multi separator provided with a plurality parallel  
operating swirl tube separators according to any one of  
claims 1-7.

9. Process to separate solids from a solids laden  
gaseous mixture having a solids content of between 100  
and 500 mg/Nm<sup>3</sup> to obtain a gaseous stream containing  
less than 50 mg solids per Nm<sup>3</sup> in a swirl tube separator  
according to any one of claims 1-7 or in a multi  
separator according to claim 8.